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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,417	08/24/2004	Hiroshi Kancta	8017-1141	7384

466 7590 08/22/2007
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EXAMINER

LEE, CYNTHIA K

ART UNIT	PAPER NUMBER
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1745

MAIL DATE	DELIVERY MODE
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08/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/505,417

Applicant(s)

KANETA ET AL.

Examiner

Cynthia Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8 and 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/6/2007 has been entered.

Response to Amendment

This Office Action is responsive to the amendment filed on 6/6/2007. Claim 21 has been added. Claims 1-3, 5-8, 11-21 are pending. Applicant's arguments have been considered and are persuasive. Upon further consideration, the instant claims are rejected under new grounds of rejections. Claims 1-3, 5-8, 11-21 are rejected for reasons stated herein below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5-8, and 11-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation in claim 1 "that is

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separated from a path of a current that is caused by charge or discharge of the flat secondary battery" is not supported by the original disclosure. Since the third terminal is attached directly to a collector, the third terminal will necessarily be in the path of a current caused by charge/discharge.

Applicant argues that one of ordinary skill in the art would understand that heat is not generated in the third terminal because the current that is caused by charging the battery does not pass through the third terminal (emphasis in original). However, the argument is not commensurate in scope with the claim as instantly recited. The claim does not recite that the current does not pass through the third terminal (emphasis added), but recites that it is "separated from a path of a current" (emphasis added). The Examiner reiterates that the third terminal is not separated from the path of current as long as the third terminal is connected to a current collector.

Further, Applicant argues that if the third terminal was in the path of the current, the third terminal would get hotter, which it does not. However, the Examiner notes that the claim does not recite that the third terminal does not get hotter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-8, and 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as to how a third terminal

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is "separated from a path of a current that is caused by charge or discharge of the flat secondary battery" when the third terminal is attached directly to a collector. The Examiner has interpreted this limitation to be met by the prior art interpretation below.

The Examiner reiterates that the third terminal is not separated from the path of current as long as the third terminal is connected to a current collector.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5,6, 11-19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takatani (JP 07-220755) in view of McMahan (US 6002240).

Takatani discloses a flat secondary battery comprising an electric-power generating element provided with positive and negative electrode collectors; positive and negative electrode terminals for charge and discharge that are attached to said positive and negative electrodes collectors, respectively, of said electric power generating element. See Fig. 1.

Takatani does not disclose a third terminal attached directly to one of collectors and that does not directly contact either positive or negative terminals and that is separated by a path of current. Takatani further discloses PCT element directly attached to either the positive or negative collectors. See label 8 in Fig. 1. McMahan

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teaches a temperature monitoring circuit coupled to a controller. The temperature monitoring circuit may be a thermistor whose resistance depends on the temperature (4:63-65). The temperature monitoring circuit is coupled to the controller and measures a temperature of the battery (4:33-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the PTC element of Takatani to a controller, as taught by McMahan, for the benefit of being able to monitor the temperature of the battery of Takatani. When the PTC element of Takatani is connected to a controller, the PTC element extended from the interior of the battery to the controller located exterior of the battery would necessarily read on Applicant's "third tab."

Takatani does not disclose that the third terminal is formed in a different direction or in a perpendicular direction as the positive and negative electrodes, or remote from terminals for charge and discharge (applicant's claims 2, 3, and 15). However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the location or the direction of the terminals to suit the electrical connection requirements and space requirements for the intended application.

Takatani discloses one third terminal and not two third terminals (applicant's claim 18 and 19). However, It would have been obvious to one of ordinary skill in the art at the time the invention was made to add more terminals for the benefit of being able to detect the battery temperature from various points of the battery. Further, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

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Takatani discloses a battery but does not disclose a plurality of said battery connected serially to each other (applicant's claims 8 and 20). However, the Examiner notes that it is common practice in the art to connect a plurality of batteries either in series or parallel to increase the voltage or the current depending on the power requirements of the intended application of the battery. It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the battery of Takatani in series or parallel for the benefit of meeting the power requirements of the intended application.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takatani (JP 07-220755) in view of McMahan (US 6002240) as applied to claim 1, and further in view of Shibuya (US 2002/0034678).

Takatani modified by McMahan does not disclose that the casing is made of a laminate film. Takatani disclose that the battery uses a solid electrolyte [0010]. Shibuya teaches that in a gel electrolyte or a solid electrolyte or the like is used as the nonaqueous electrolyte, a thin battery which uses a laminate film as an outer casing material [0085]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the casing of the battery of Takatani modified by McMahan with laminate film, as taught by Shibuya, for the benefit of making a cell flat compared with metal cylindrical cans commonly used for cylindrical shaped batteries. Furthermore, it would have been obvious to one of ordinary skill in the art at the time

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the invention was made to use a laminate casing instead of a rectangular battery can for the benefit of a light weight battery to give a higher energy density.

Response to Arguments

Applicant's arguments with respect to prior art Clingempeel and Higashijima have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Lee whose telephone number is 571-272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ckl


SUSY TSANG-FOSTER
PRIMARY EXAMINER